



58049-00035.ST25.txt
SEQUENCE LISTING

<110> Korea Research Institute of Bioscience and Biotechnology
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KWON, Suk-Yoon
LEE, Haeng-Soon
RYU, Sun-Hwa

<120> Multiple stress-inducible peroxidase promoter derived from
Ipomoea batatas

<130> 58049-00035

<140> US 10/597,945
2006-08-11

<150> PCT/KR2004/000381
2004-02-24

<160> 30

<170> KopatentIn 1.71

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 cgtaggagg tacagggacg agatggacgc ttttctcgcc gatttcgccg ccgccatggt 1260
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 gtctgtgatt ctgtgaaagt tttactcgga ctgtgaagaa ttttcacttt ctgttgtttc 1440
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<210> 2
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 <212> DNA
 <213> Ipomoea batatas
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 <221> promoter
 <222> (1)..(110)
 <223> -110 deletion promoter

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 <212> DNA
 <213> Ipomoea batatas
 <220>
 <221> promoter
 <222> (1)..(177)
 <223> -177 deletion promoter

<400> 3
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 gaagaacttt ccctttcaag ttctctattt aaggaagcct gagaagccat taatcctcat 120
 catcagctcg accactcatt tcttcttcat acttcctttg ctgtgataat catcatc 177

<210> 4
 <211> 306
 <212> DNA
 <213> Ipomoea batatas
 <220>
 <221> promoter
 <222> (1)..(306)

<223> -306 deletion promoter

<400> 4
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 aaatagtact ccaatcataa taaattatct tatattatat tgccaacaat taaaaattca 120
 aattagaaca aattaaatct cagtttgctt tattatatta ttatcaacaa taataattta 180
 atactgatcg aagaactttc cttttcaagt tctctattta aggaagcctg agaagccatt 240
 aatcctcatc atcagctcga ccactcattt cttcttcata cttcctttgc tgtgataatc 300
 atcatc
 306

<210> 5
 <211> 366
 <212> DNA
 <213> Ipomoea batatas

<220>
 <221> promoter
 <222> (1)..(366)
 <223> -366 deletion promoter

<400> 5
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 taagggtgttt tatcgtggca gcatgagtgc atgacaaacg catatattat tattaataaca 120
 aaatagtact ccaatcataa taaattatct tatattatat tgccaacaat taaaaattca 180
 aattagaaca aattaaatct cagtttgctt tattatatta ttatcaacaa taataattta 240
 atactgatcg aagaactttc cttttcaagt tctctattta aggaagcctg agaagccatt 300
 aatcctcatc atcagctcga ccactcattt cttcttcata cttcctttgc tgtgataatc 360
 atcatc
 366

<210> 6
 <211> 433
 <212> DNA
 <213> Ipomoea batatas

<220>
 <221> promoter
 <222> (1)..(433)
 <223> -433 deletion promoter

<400> 6
 atgggtgactt aaagggctga atccaacata tattctgaca tttaaaaatg ctaacgtacg 60
 gttagattag tataatgaaa taaagttaat cattctctat atttgatgat ggtaattagt 120
 atcatggtaa ggtgttttat cgtggcagca tgagtgcacg acaaacgcat atattattat 180

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taaaacaaaa tagtactcca atcataataa attatcttat attatattgc caacaattaa 240
 aaattcaaat tagaacaaat taaatctcag ttgctttat tatattatta tcaacaataa 300
 taatttaata ctgatcgaag aactttccct ttcaagttct ctatttaagg aagcctgaga 360
 agccattaat cctcatcatc agctcgacca ctcatttctt cttcatactt cctttgctgt 420
 gataatcatc atc
 433

<210> 7
 <211> 818
 <212> DNA
 <213> Ipomoea batatas
 <220>
 <221> promoter
 <222> (1)..(818)
 <223> -818 deletion promoter

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 gcttcacgca ctcaactagt cacatctttc caggcaaaat ttacttttct atgaatatga 60
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 aactcaccta ctccattata gccgataata caactcacct agctactcca ttatagtcca 360
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 gcatgacaaa cgcatatatt attattaaaa caaaatagta ctccaatcat aataaattat 600
 cttatattat attgccaaca attaaaaatt caaattagaa caaattaaat ctgagtttgc 660
 tttattatat tattatcaac aataataatt taatactgat cgaagaactt tccctttcaa 720
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 ttcttcttca tacttccttt gctgtgataa tcatcatc
 818

<210> 8
 <211> 1199
 <212> DNA
 <213> Ipomoea batatas
 <220>
 <221> promoter
 <222> (1)..(1199)

<223> -1199 deletion promoter

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<400>      8
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taaacttagc catcatatga catttgatca tgattgatga tttttaaaaa ataaaaacaa    240
aattatgaaa gggtaatgaa atatttttaa aaaattatgt aaaccctgta atctagtaat    300
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tgatcttcgt acaataatta tgcttcacgc actcaactag tcacatcttt ccaggcaaaa    420
tttacttttc tatgaatatg agaagttcca tctatggaaa taacggatta tttatctaatt    480
tttcaaattc tatatatata gtctcgagtg gaacaaaaat agaactaatt tgaacaaatc    540
aaagtctaag aaaataatac atgcttttagc agcaaaaata agaatggtac tatacttaat    600
cctcatcata gtcttcaacc ctgcatatag cacacttaac attttatatt caaatatact    660
ttaatttagt catgataata caactcacct actccattat agccgataat acaactcacc    720
tagctactcc attatagtcc aacaatatca aatgaataaa atagtaatgg tgacttaaag    780
ggctgaatcc aacatatatt ctgacattta aaaatgctaa cgtacgggta gattagtata    840
atgaaataaa gttaatcatt ctctatattt gatgatggta attagtatca tggtaagggtg    900
ttttatcgtg gcagcatgag tgcatgacaa acgcatatat tattattaaa acaaaatagt    960
actccaatca taataaatta tcttatatta tattgccaac aattaaaaat tcaaattaga   1020
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tcgaagaact ttccctttca agttctctat ttaaggaagc ctgagaagcc attaatcctc   1140
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<210>      9
<211>      1467
<212>      DNA
<213>      Ipomoea batatas

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<220>
<221>      promoter
<222>      (1)..(1467)
<223>      -1467 deletion promoter

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<400>      9
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atactactcc aaaaattatg aaatttttat ggtagcttct acacttatag aactacatgt    120
ataaaaaata ttgggtcaaa ataccttacc gatttttccc aaatattcac ggaacttact    180

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gccagaatct accctgcttt ttcctttcac tattttcaca actataagca tatatgggca 240
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 tactacaatt aactaatgat aaagtataac ttttgtaaaa aatttgattt ttttttttga 360
 tgaattcata tactccaaag attttcctca ttttaattaa tttctatcct catgttgaac 420
 ccattaatcg aataattgac atattagata aacttagcca tcatatgaca tttgatcatg 480
 attgatgatt tttaaaaaat aaaaacaaaa ttatgaaagg gtaatgaaat attttaaaaa 540
 aattatgtaa accctgtaat ctagtaatct gtacaataat aattttgttt caactaagag 600
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 aatgctaacg tacgggttaga ttagtataat gaaataaagt taatcattct ctatatttga 1140
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 1467

<210> 10
 <211> 1934
 <212> DNA
 <213> Ipomoea batatas

<220>
 <221> promoter
 <222> (1)..(1934)
 <223> -1934 deletion promoter

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 aatatcatct ctacttaaac tagagagatt tccaactctc aattaatcac caaaggtaac 180

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aggttcacga attaacacag aaaattacat ctttgccctt ggacgtgggc tgtccggaat 480
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ataatttaat actgatcgaa gaactttccc tttcaagttc tctatttaag gaagcctgag 1860
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1934

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<210> 11
 <211> 2433
 <212> DNA
 <213> Ipomoea batatas

<220>
 <221> promoter
 <222> (1)..(2433)
 <223> -2433 promoter

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 2433

<210> 12
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> GSP1 promoter

<400> 12
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 26

<210> 13
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> AP1 promoter

<400> 13
 gtaatacgac tcactatagg gc
 22

<210> 14
 <211> 25

<212> DNA
 <213> Artificial Sequence

<220>
 <223> GSP2 promoter

<400> 14
 cacagcaaag gaagtatgaa gaagc
 25

<210> 15
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> AP2 promoter

<400> 15
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 19

<210> 16
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> exon promoter

<400> 16
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 26

<210> 17
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> intron promoter

<400> 17
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 30

<210> 18
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> forward promoter for -2433 deletion promoter

<400> 18
 gccaaagcttg gtcctcatgg agtattctca taact
 35

<210> 19
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> forward primer for -1934 deletion promoter

<400> 19
 gccaaagcttt tgccatctca ccacttcgctc tta
 33

<210> 20
 <211> 31
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> forward primer for -1467 deletion promoter

<400> 20
 gccaaagcttg gctgtccgga attctgtctc t
 31

<210> 21
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> forward primer for -1199 deletion promoter

<400> 21
 gccaaagctta tgcagggtga aagtaagatt gaa
 33

<210> 22
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> forward primer for -818 deletion promoter

<400> 22
 gccaaagcttg cttcacgcac tcaact
 26

<210> 23
 <211> 33

<212> DNA
 <213> Artificial Sequence

<220>
 <223> forward primer for -433 deletion promoter

<400> 23
 gccaaagctta tggtagactta aagggtgaa tcc
 33

<210> 24
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> reverse primer for -2433, 1934, 1467, 1199, 818, 433, 366, 306, 177 and 110 deletion promoter

<400> 24
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 34

<210> 25
 <211> 31
 <212> DNA
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<220>
 <223> forward primer for -366 deletion promoter

<400> 25
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 31

<210> 26
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> forward primer for -306 deletion promoter

<400> 26
 tttctgcagt aagggtgttt atcgtg
 26

<210> 27
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> forward primer for -177 deletion promoter

<400> 27
ttcctgcaga aattaaatct cagtt
25

<210> 28
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> forward primer for -110 deletion promoter

<400> 28
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24

<210> 29
<211> 19
<212> DNA
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<220>
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<400> 29
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19

<210> 30
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<220>
<223> reverse primer for NPTII

<400> 30
atcgggagcg gcgataccgt a
21

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1